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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,246	11/17/2003	Thomas H. Baum	ATMI-645	4989

25559 7590 10/17/2005

ATMI, INC.  
7 COMMERCE DRIVE  
DANBURY, CT 06810

EXAMINER
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DEO, DUY VU NGUYEN

APP UNIT	PAPER NUMBER
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10/17/2005

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/715,246

Applicant(s)

BAUM, THOMAS H.

Examiner

DuyVu n. Deo

Art Unit

1765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 18-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 9-16 is/are rejected.
- 7) ☒ Claim(s) 6-8 and 17 is/are objected to.
- 8) ☒ Claim(s) 18-22 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/12/04.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 9-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Prasad (US 6,913,517).

Prasad describes a polishing pad comprising: polymer resin formed from di-isocyanate and polyols (col. 5, line 55-65) (claimed organic polymer or liquid urethane), and a solid catalysts (claimed metal agent) (col. 9, line 41-50).

Referring to claim 5, the pad further includes polyesters (col. 5, line 49).

Referring to claims 15 and 16, the solid catalysts are dispersed throughout the pad; therefore, it would effect the cross linking reactions during the forming and increase thermal stability.

Referring to claim 9, Prasad describes the pad is used for polishing insulating and metal layers in a substrate including memory storage devices, semiconductor substrates, MEMES devices, which would have isolated metal feature in the wafer (col. 13, line 5-20).

Referring to claim 10, the solid catalysts comprises of Co, which would compatible with the metal polished comprises of Co (col. 9, line 41-50; col. 13, line 5-20).

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Referring to claims 11-13, since the pad is made of the same chemicals as that of the claimed invention, it would inherently perform with the same physical characteristics as that of the claimed invention.

Referring to claim 4, since the organic polymer is the same as that of the invention, it would be reactive with one of the materials listed in the claim.

***Allowable Subject Matter***

3. Claims 6-8, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 6-8, and 17 are allowable because applied prior art, Prasad doesn't teach or suggest the solid catalysts (claimed metal agent) includes a metal B-diketonate.

***Election/Restrictions***

4. Applicant's election with traverse of claims 1-17 in the reply filed on 9/28/05 is acknowledged. The traversal is on the ground(s) that another product can not be formed because of the language and limitation in the claim. This is not found persuasive because the method can be used to mix different kind of organic polymer and metal agent to form a product that is a CMP material.

5. Applicant's argument that the claims imposes no serious burden of searching on the Examiner because group II contains only 3 claims and group III contains only 2 claims is found unpersuasive because the inventions are distinct for the reasons given in the office action sent on 9/2/05, would require different searches and entail different patentability determinations;

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therefore, restriction for examination purposes as indicated is proper (MPEP § 2112.01 and 2112.02)

The requirement is still deemed proper and is therefore made FINAL.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DuyVu n. Deo whose telephone number is 571-272-1462. The examiner can normally be reached on 6:00-2:30 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on 571-272-1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Primary Examiner  
Duy-Vu N. Deo  
10/11/05

